Trajectory Guidance for Mars Robotic Precursors



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Dual HIAD

Synopsis:

The Exploration Feed Forward (EFF) study developed a set of large mass-to-surface Mars EDL robotic reference missions which are intended to demonstrate inflatable aeroshells and supersonic retropropulsion technologies. The performance of the trajectory guidance for each phase is shown.

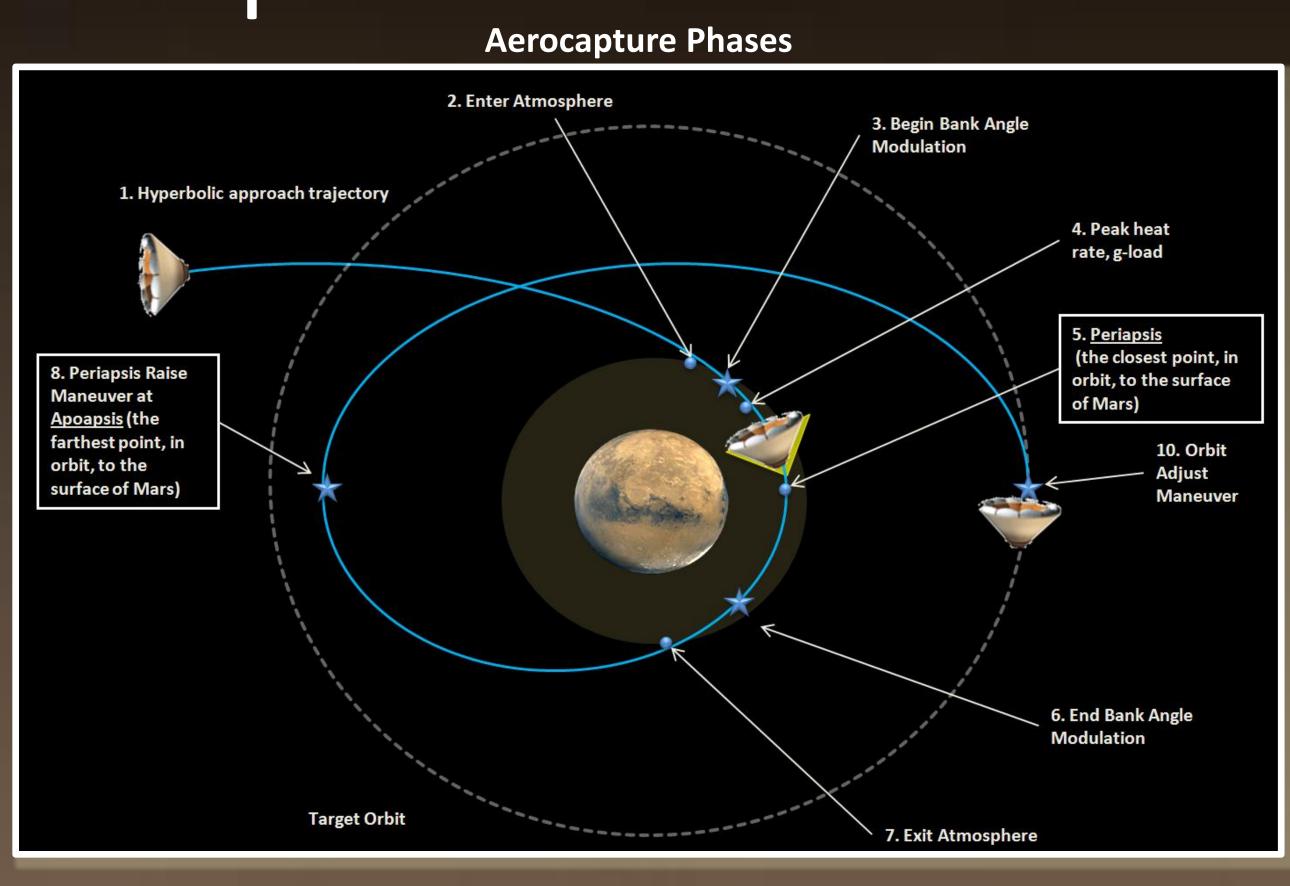
Mars EFF EDL Reference Missions

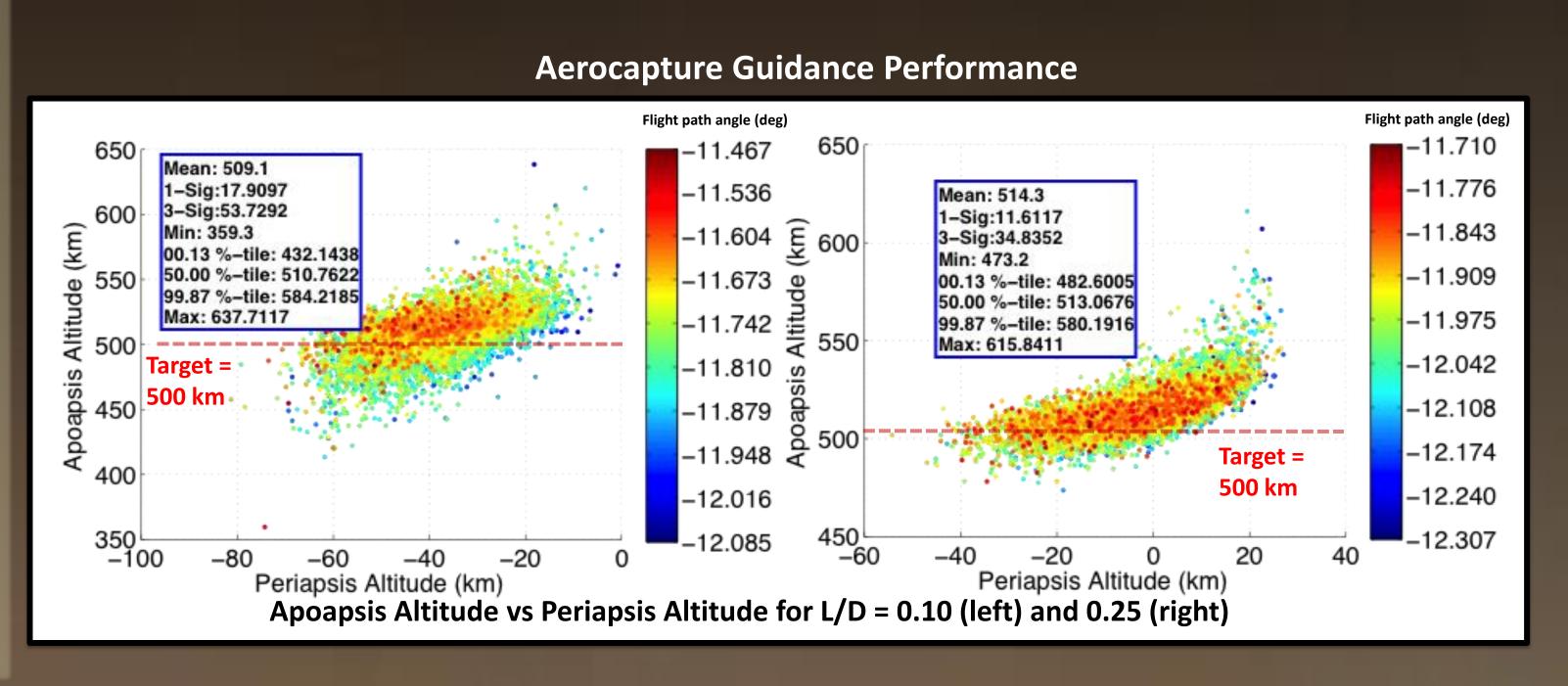
EFF Speed 7.3 km/s

Single HIAD

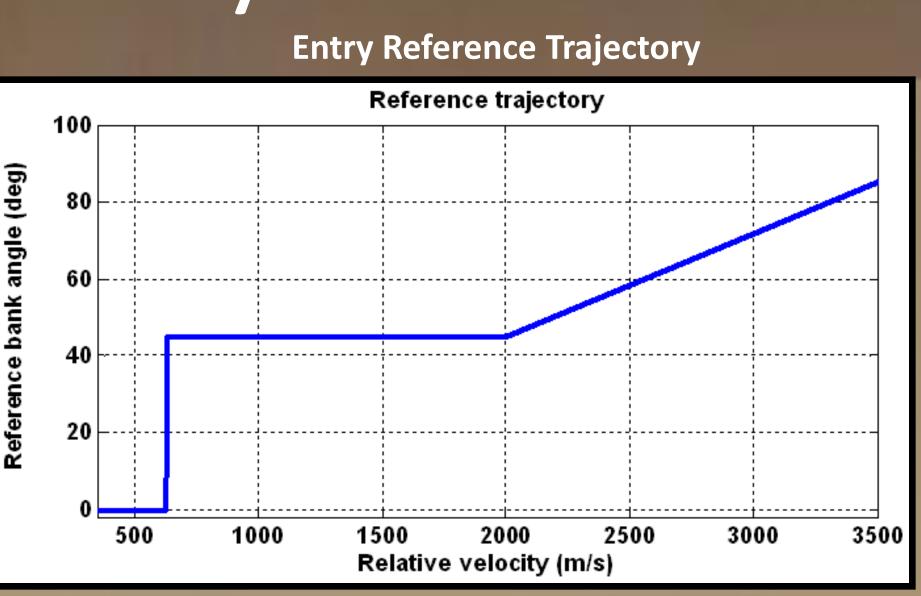
MSL Speed 5.8 km/s

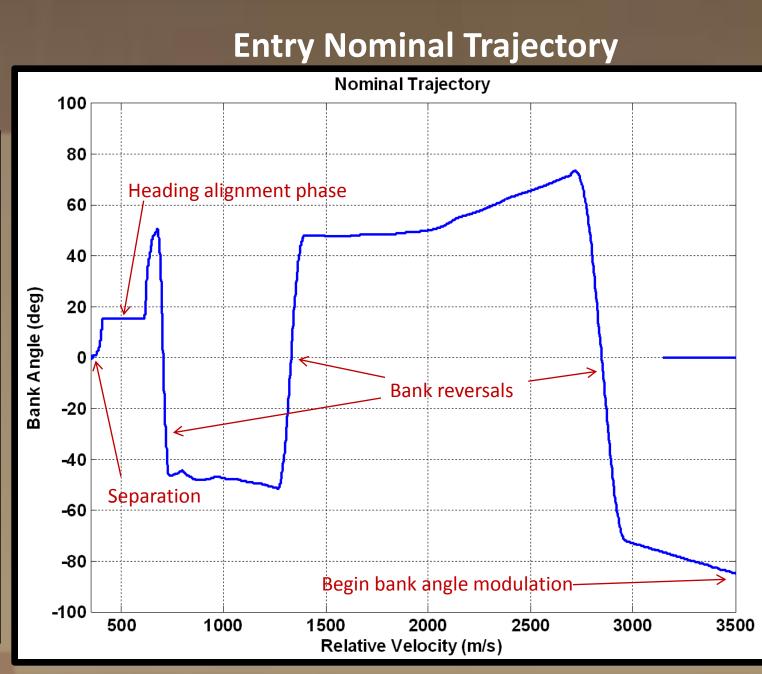
Aerocapture

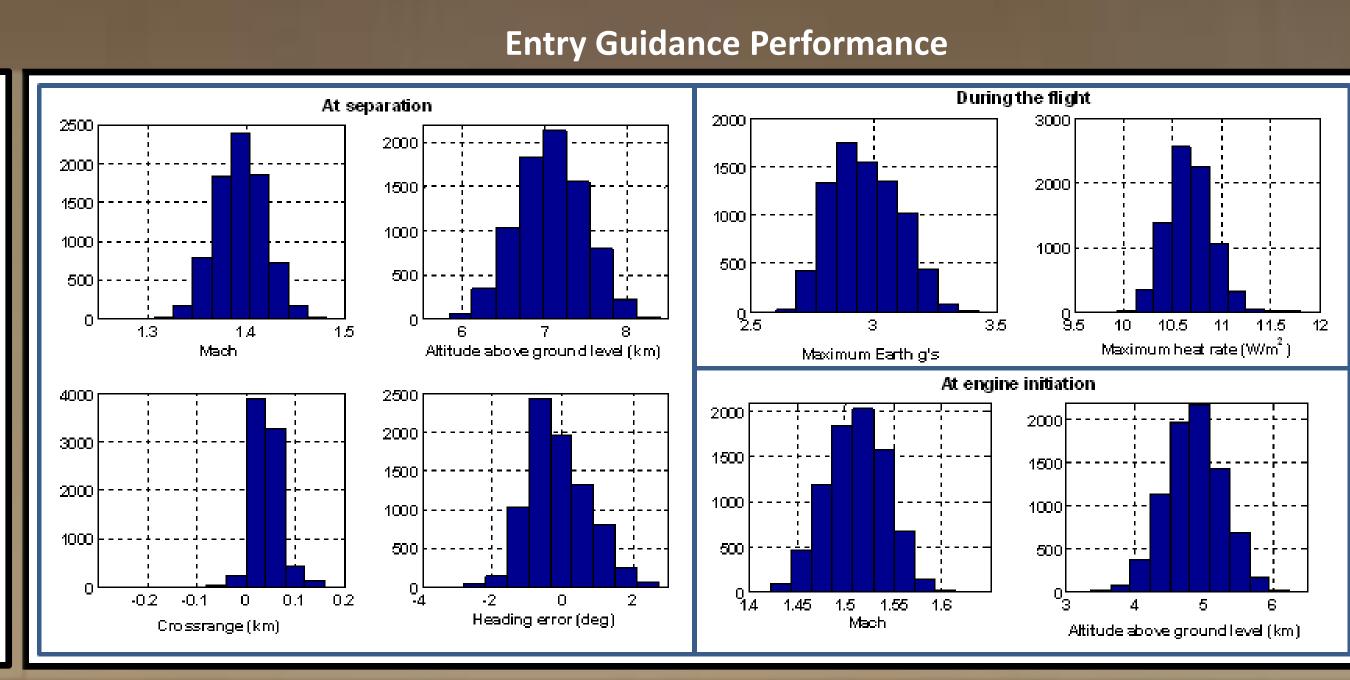




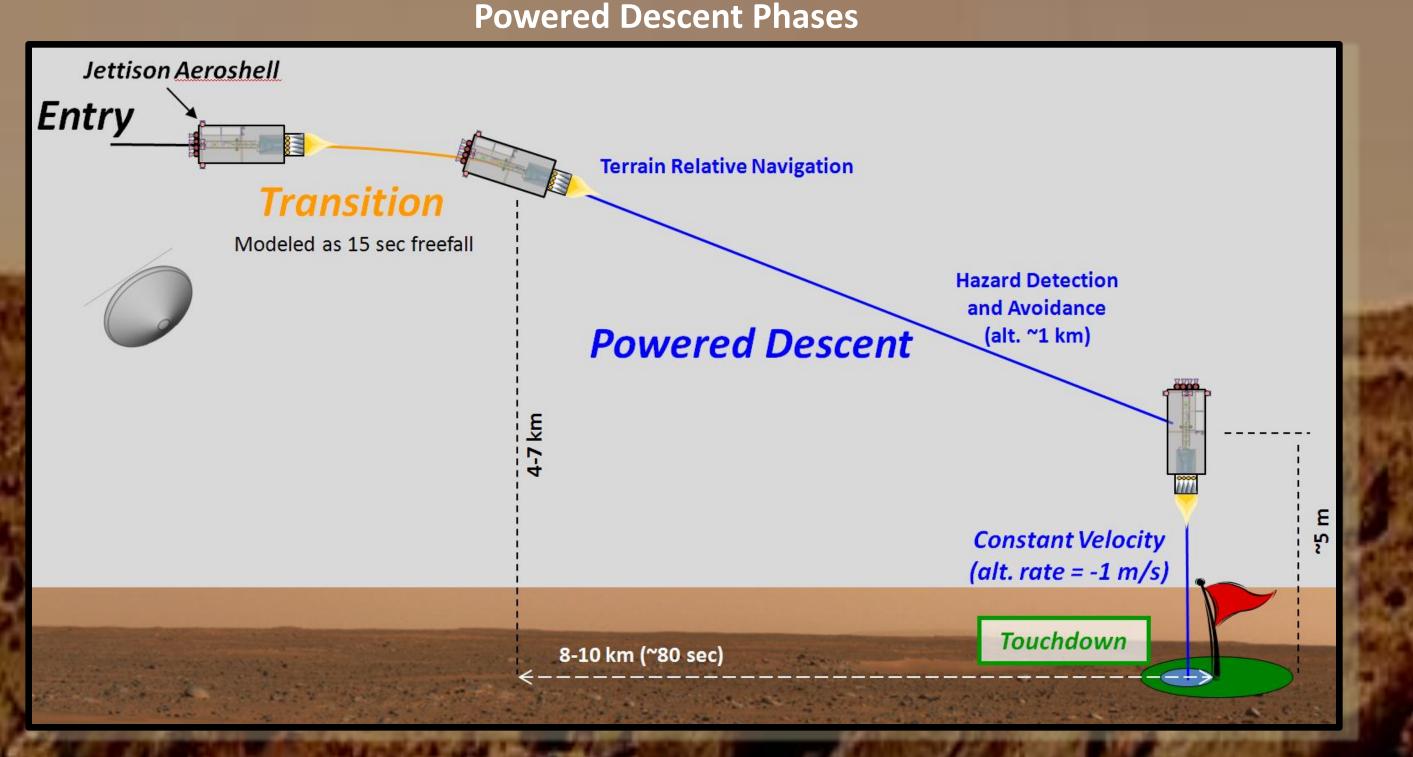
Entry

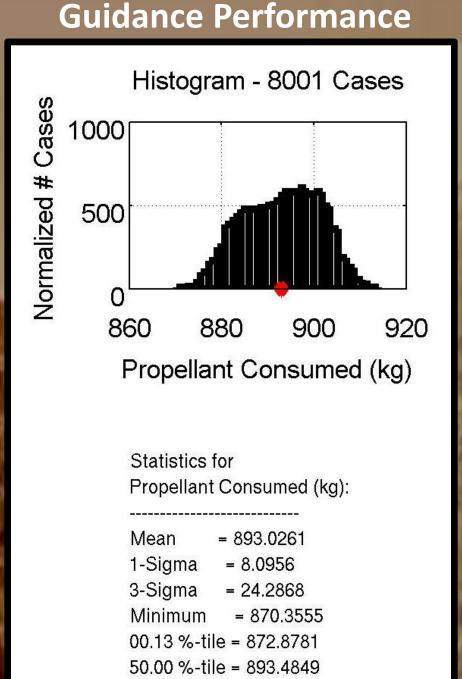






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